

ABSTRACT

This invention relates to an electrochemical cell comprising a cathode containing a proton-conducting compound as an electrode active material, an anode containing a
5 proton-conducting compound as an electrode active material and an aqueous electrolytic solution containing a proton source as an electrolyte, wherein the electrolytic solution comprises a polymeric compound having an atom with an unpaired electron in
10 its principal chain as an electron-transfer promoter. This invention can provide an electrochemical cell exhibiting improved capacity, high-speed charge/discharge properties and cycle properties.